

In re Patent Application of:  
ALHADDAD ET AL  
Serial No. 09/990,871  
Filed: NOVEMBER 16, 2001

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REMARKS

Prior to the present amendment, claims 1-20 were pending. By the foregoing amendment, claims 1-20 have been cancelled and new claims 21-49 have been added. Consequently, claims 21-49 are currently pending. Reconsideration of this application in light of the foregoing amendments and following remarks is respectfully requested.

The rejection of claims 1-20, as set forth in item 8, on pages 3-7 of the Office Action of February 27, 2006, particularly as applied to replacement claims 21-49, is respectfully traversed.

In an effort to more concisely define the present invention, Applicants have replaced claims 1-20 with a new set of claims 21-49, claims 21, 33 and 45 of which are independent. Dependent claims 22-30, 34-42, 46 and 47 further delimit these independent claims by features set forth in dependent ones of claims 1-20, previously filed. In addition, new dependent claims 32 and 33, 43 and 44, and 48 and 49 further delimit respective independent claims 21, 33 and 45 by reciting the ability of the target application enhancement mechanism to cause the visual display interface to display an object in addition to those displayed by the forms-based target application program and to modify the appearance of an object. As a non-limiting example, such additional objects may include screen markers, such as red geometrical shapes, as described in paragraph [107] of the specification. Applicants respectfully submit that the more concise definition of their invention in claims 21-49 is neither disclosed nor suggested by the prior art patents to Rogers et al and Wolff et al, of record.

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More particularly, each of replacement independent claims 21, 33 and 45 specifies the fact that the invention automatically causes the playback from a voice storage and retrieval mechanism of one or more voice messages to a party conducting a call with a facility. A call agent of the facility conducts live voice communication dialogue during the call, in order to obtain information that is entered into a form. The form itself contains a plurality of objects and is displayed by a visual display interface of the call agent's computer workstation, in association with the execution of a forms-based target application program in the course of voice communications between the call agent and the party. The basic methodology or apparatus in which the present invention is employed is briefly described, for example, in paragraphs [13]-[17] of the present specification.

In order to provide for the automatic playback of such voice messages, the call agent's workstation is coupled with a voice message storage and retrieval mechanism. This mechanism stores and automatically plays back one or more pre-recorded voice messages in response to a voice message selection signal. In accordance with the invention, in addition to executing the forms-based target application program, the call agent's workstation is provided with a software enhancement to that target application program. This enhancement, referred to in the claims as "a target application enhancement mechanism", is linked with the forms-based target application program. This target application enhancement mechanism responds to the call agent performing a prescribed interaction with one or more of the objects displayed on the visual display interface of the call agent's workstation by the target application program, and automatically triggers one or more actions that are in addition to those performed by the target application program. These one or more pre-defined actions may include the automatic generation

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of a voice message selection signal, which causes the automatic playback by the storage and retrieval mechanism of one or more of the pre-recorded voice messages, that are effective to cause the party to voice information, so that this information may be entered by the call agent into one or more fields of the forms displayed on that call agent's computer workstation by the target application program.

As described in paragraph [16] of the present specification, a fundamental aspect of the invention is its ability to respond to user (call agent) interactions with the elements or objects that are displayed by the existing target application program on the display interface, without having to modify the source code of the target application software. Instead, hooking and subclassing techniques are employed, without requiring any changes to the target application itself.

Looking now at the prior art cited in the Office Action of February 27, 2006, the US patent to Rogers et al 5,946,386 discloses a call management system which allows a call-routing agent, who remains off-line, to be alerted as to who is calling, prior to the call being accepted, and thereby establish the likely priority of the call and decide how best to handle the call.

Rogers et al do not disclose any type of system, including one which executes a forms-based target application program, in which the call agent conducts live voice communications with the party during the call.

Secondly, Rogers et al fail to disclose a software enhancement that is linked with their target application program that is linked therewith and is operative, in response to the call agent performing a prescribed interaction with displayed

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objects in association with (non-existent in Rogers et al) live voice communications with the party, to automatically trigger one or more actions in addition to those performed by the target application program including causing the playback of one or more pre-recorded voice messages, that prompt the party to voice information that is entered by the call agent into one or more fields of the form displayed upon the visual display interface of the agent's workstation.

As pointed out above, and as is believed to be clearly delineated in replacement claims 21-49, the one or more actions that are automatically triggered by the target application enhancement mechanism of the present invention are in addition to those that are performed as a result of execution of the target application program.

In the off-line, supervised-routing system disclosed in the patent to Rogers et al, all actions are performed by the target (routing) application program. This includes the various functions delineated under the headings 8.11 "Workstation Realtime Call Controls and Management" through 8.20 "Automatic Updating", in columns 29-35, for example, of the forms-based patent.

Moreover, and contrary to what Applicants respectfully submit has been inaccurately attributed to Rogers et al in the bottom two paragraphs on page 5 of the Office Action of February 27, 2006, the patentees disclose no mechanism for automatically triggering the execution of the one or more actions that are in addition to those performed by the target application program, without access to the source code of that target application program, and by way of at least one of hooking and sub-classing, as delineated in dependent claims 22 and 23, 34 and 35 and , 46 and 47. Figure 6 and column 31, lines 60-67 and column 2, lines

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9-20 of the patent to Rogers et al, referenced on page 5 of the rejection, do not disclose or suggest these features.

In summary, the patent to Rogers et al is deficient with respect to the invention currently claimed in claims 21-49 in several key respects. First, the call routing mechanism of Rogers et al is off-line based, wherein the call handling agent supervises the routing of a call without live voice communication dialogue with the party.

Secondly, because there are no live voice communications with the party, and because the call handler essentially supervises routings, (rather than obtaining information from the party) the call handler does not obtain information from that party that the call handler then enters into the fields of a form displayed on the call handler's workstation in the course of (non-existent) live voice communications between the calling party and the call handler.

Thirdly, in the system of Rogers et al, there is no enhancement program that is linked with the base routing program through which calls are routed by the system. Applicants' invention enhances the target application program, as the call agent interfaces (by way of the keyboard, mouse and/or workstation display interface) with that program, while conducting a live voice communication with the party. In the system of Rogers et al, there are no on-line live voice communications with the calling party by the call agent, nor is there any auxiliary or enhancement program that is linked with the basic routing system to provide auxiliary or enhanced functionality, that allows the call agent to both interface with the target application program, and to create behavior (e.g., the automatic playback of one or more voice messages) in addition to that already performed by the underlying target application program.

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The secondary patent to Wolff et al 5,774,887 has been cited for its disclosure of a forms-based customer relationship management (CRM) display interface and a CRM operator.

The existence in the prior art of a customer service electronic form-generating system, such as that described by Wolff et al, does not remedy the deficiencies of the patent to Rogers et al with respect to Applicants' claimed invention.

First of all, forms-based (CRM) target application programs, and systems which employ such programs, are acknowledged prior art in the present application. Applicants' invention involves a software enhancement to such programs, that provide functionality in addition to that of the underlying target program, so as to allow the call agent or operator to manipulate or invoke objects displayed by the target program and produce enhanced functionality that would not otherwise be performed by such program.

What is actually disclosed in the patent to Wolff et al is a form-delivery system, which determines what forms are necessary to perform a particular task, and then displays a task map to indicate to the customer service representative the forms to be filled in, and where those forms should be inserted. Wolff et al contain no disclosure or suggestion of modifying the call-routing system of Rogers et al to result in a methodology or system upon which Applicants' claims would read.

Like the call-routing target application of Rogers et al, the electronic forms-sequencing system of Wolff et al employs only the target application software program to control all aspects of the system. There is no separate enhancement to the target application program that provides auxiliary actions, that

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are performed, in addition to those of the underlying target application software, when the call agent interacts with objects displayed on the call agent's computer workstation by the target application program.

Moreover, there is no disclosure or suggestion in either patent of adding automated form-generation functionality to the call routing mechanism in Rogers et al. The system of Rogers et al is an off-line, call-routing system, whose purpose it is to automatically route calls from calling parties to their intended destinations. There is no filling in of a displayed form with information by the off-line operator, as in the case of the forms-based system such as Wolff et al, wherein the call agent is on-line. Indeed, requiring the off-line, call-routing operator of the system of Rogers et al to fill in a form makes no sense. The purpose of the off-line call agent in Rogers et al is to expedite the routing of several calls at once, not to collect information to be entered in a forms-based screen, which would result in the opposite result, namely it would slow things down and fill out unnecessary information in an electronic form and would restrict the user that is supposed to be routing several calls at once to handling only one call at a time and not routing calls at all.

Moreover, like Rogers et al, Wolff et al contains no disclosure or suggestion of performing actions in addition to those realized by the execution of the forms-based target application program, without access to source codes of that program, including the performing of at least one of hooking and sub-classing, as claimed in the dependent claims.

In view of the manner in which Applicants' invention has been more particularly defined in replacement claims 21-46 and in the absence of prior art which discloses or suggests the more

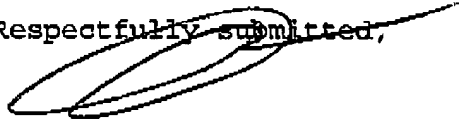
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particularly defined features of these claims, favorable reconsideration of this application and a notice of allowance of claims 21-46 are respectfully submitted.

Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned attorney at the telephone number listed below.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account No. 01-0484 and please credit any excess fees to such deposit account.

Respectfully submitted,

  
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CERTIFICATE OF FACSIMILE TRANSMISSION

I HEREBY CERTIFY that the foregoing correspondence has been forwarded via facsimile number 571-273-8300 to MAIL STOP RCE COMMISSIONER FOR PATENTS, this 30 day of May 2006.

  
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JAMMY KALLMERUS